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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

NGUYEN, VAN H

ART UNIT	PAPER NUMBER
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2126

DATE MAILED: 03/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/818,447

Applicant(s)

OLSON ET AL.

Examiner

VAN H NGUYEN

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to the application filed March 27, 2001. Claims 1-29 are presented for examination.

Specification

2. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code (e.g., see pages 12 and 16). Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code (i.e., "http://www..." must be deleted). The entire specification must be corrected. See MPEP § 608.01.

Claim Objections

3. Claim 24 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. See MPEP § 608.01(n). Accordingly, the claim has not been further treated on the merits.
4. Claims 4 and 29 are objected to because of the following informalities:
 - In claims 4 and 29, "a Hyptertext Transfer Protocol" should be "a Hypertext Transfer Protocol."

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-25 and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. The following terms lack antecedent basis:

- i. "the at least one protocol object creator" (claims 1 and 29)
- ii. "the application" (claim 17)

B. The claim languages in the following claims are indefinite.

i. As to claim 1, it is unclear what is meant by "at least one associated registered protocol object creator."

ii. As to claims 23- 24, both claim both *the computer readable medium* and *the method*. Therefore, it renders the claim indefinite. See In Ex parte *Lyell*, 17USPQ2d 1548 (Bd. Pat. App. & Inter. 1990)

7. Dependent claims 2-16 and 18-24 are rejected for fully incorporating the deficiencies of their base claims.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 25-27 are rejected under 35 U.S.C. 102(e) as being anticipated by **Potvin** (U.S. 6,393,467 B1).

10. As to claim 25, Potvin teaches the invention as claimed including a data packet adapted to be transmitted between two or more computer processes (*col.6, lines 19-34*), the data packet comprising:

information operable to facilitate selecting a protocol object creator (*col.6, lines 34-58*).

11. As to claim 26, Potvin teaches the invention as claimed including a data packet adapted to be transmitted between two or more computer processes (*col.6, lines 19-34*), the data packet comprising:

byte stream data produced by a protocol object, the byte stream data having at least one of a format specific to a protocol and one or more headers and/or footers specific to the protocol removed from a first data read from a resource (*col.6, lines 45-58*).

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12. As to claim 27, Potvin teaches a second data having at least one of a format specific to the protocol and one or more headers and/or footers specific to the protocol added to a byte stream provided by a computer program (*col.6, lines 45-58*).

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

14. Claims 1-16 and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Potvin.

15. As to claim 1, Potvin teaches the invention substantially as claimed including a system for communicating over a protocol (*col.6, lines 19-33*), comprising:
a class factory comprising:

- a plurality of identifiers (*col.6, lines 40-50*); and

- at least one associated registered protocol object creator, the at least one protocol object creator adapted to create at least one protocol object (*col.6, lines 19-33*).

Potvin does not explicitly teach “a class factory.”

Potvin, however, discloses “*HTTP server application*” (*col.6, lines 19-22*).

It would have been obvious to one of ordinary skill in the art to have applied the teaching of Potvin for “a class factory” in order to provide means for allowing the creation and dispatch of IP packets.

16. As to claim 2, Potvin teaches a reading component adapted to read a first data from a resource, the first data having at least one of, a format specific to the protocol and one or more headers and/or footers specific to the protocol when it is read from the resource; and a writing component adapted to write a second data to the resource, the second data having at least one of, a format specific to the protocol and one or more headers and/or footers specific to the protocol when it is written to the resource (*col.5, lines 31-51 and col.6, lines 34-58*).

17. As to claim 3, Potvin teaches the resource is at least one of, a service, an application and a content source, the resource being accessible over a network (*col.7, lines 40-55*).

18. As to claim 4, Potvin teaches the protocol is a Hypertext Transfer Protocol (*col.6, lines 19-22*).

19. As to claim 5, Potvin teaches the plurality of identifiers comprise one or more Uniform Resource Identifiers (*col.6, lines 40-47*).

20. As to claim 6, Potvin teaches the plurality of identifiers comprise one or more prefixes associated with one or more URIs (*col.6, lines 40-47*).

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21. As to claim 7, Potvin teaches the at least one protocol object creator instantiates the at least one protocol object, and wherein the protocol object creator is software in execution (*col. 6, lines 19-33*).
22. As to claim 8, Potvin teaches the at least one protocol object creator registers one or more implemented creating methods with the class factory, the creating methods being defined in an abstract base class and implemented by the at least one protocol object (*col. 6, line 59-col. 7, line 7*).
23. As to claim 9, Potvin teaches the at least one or more protocol object inherits from one or more abstract base classes (*col. 6, lines 19-58*).
24. As to claim 10, Potvin teaches the at least one protocol object is adapted to read the first data from the resource (*col. 7, lines 45-65*).
25. As to claim 11, Potvin teaches the at least one protocol object makes the data read from the resource available as a byte stream (*col. 7, lines 45-65*).
26. As to claim 12, Potvin teaches the at least one protocol object removes at least one of a format specific to the protocol and one or more headers and/or footers specific to the protocol from the first data (*col. 6, lines 26-58*).
27. As to claim 13, Potvin teaches the at least one protocol object is adapted to write the second data to the resource (*col. 7, lines 45-65*).
28. As to claim 14, Potvin teaches the at least one protocol object accepts a byte stream to write as the second data to the resource (*col. 7, lines 45-65*).

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29. As to claim 15, Potvin teaches the at least one protocol object adds at least one of a format specific to the protocol and one or more headers and/or footers specific to the protocol to the second data (*col.6, lines 26-52*).

30. As to claim 16, Potvin teaches an adding component adapted to add one or more identifiers to a list of registered identifiers and further adapted to add one or more protocol object creating methods to a list of registered protocol object creating methods (*col.6, lines 26-58*).

31. As to claim 28, Potvin teaches the invention substantially as claimed including a system for simplifying application program communication over a protocol (*abstract*), comprising:

- storing means for storing a data related to resolving a Uniform Resource Identifier (*abstract and col.6, lines 45-50*);
- creating means for creating a protocol object (*col.6, lines 19-33*);
- determining means for selectively determining means for creating a protocol object(*col.6, lines 19-33*);
- accessing means for accessing a method in the protocol object, which method implements a method defined in a network object base class; and
- communicating means for communicating with a resource, wherein the communicating means employ one or more methods in the protocol object (*fig.1 and associated text*).

Potvin does not explicitly teach “registering means for registering a protocol object creator.”

Potvin, however, discloses “*database engine*” (*fig. 3*).

It would have been obvious to one of ordinary skill in the art to have applied the teaching of Potvin for “registering means for registering a protocol object creator” in order to provide means for enabling access to the managed objects.

32. As to claim 29, the rejection of claim 1 above is incorporated herein in full. Claim 29, however, further recites: the identifiers are URIs; a reader, a writer, and a Hypertext Transfer Protocol.

Potvin teaches the identifiers are URIs (*col.6, lines 40-47*) a reader, a writer (*col.5, lines 31-51*), and a Hypertext Transfer Protocol (*col.6, lines 19-34*).

33. Claims 17-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Potvin** in view of **De Boor et al.** (U.S. 6,173,316).

34. As to claim 17, Potvin teaches the invention substantially as claimed including a method for allowing a computer program to communicate over one of a plurality of protocols (*abstract*), comprising:

- receiving a request to communicate (*col.7, lines 39-43*);
- creating an instance of a protocol object (*col.7, lines 56-65*); and
- returning the protocol object to the application (*col.7, lines 39-43*).

Potvin, however, does not explicitly teach one or more protocol handlers and using a base class Application Programming Interface to communicate through the protocol object.

De Boor teaches one or more protocol handlers (*col.11, lines 36-62*) and using a base class Application Programming Interface to communicate through the protocol object (*col.12, lines 15-35*).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Potvin and De Boor because De Boor's teaching would have provided the capability for efficiently dispatching data packets over the communication network.

35. As to claim 18, Potvin teaches a computer program generating a request to communicate, wherein the request to communicate identifies a URI with which a communication is desired (*col.6, lines 40-47*)

36. As to claim 19, Potvin teaches selectively determining one or more protocol object creators operable to create the protocol object based, at least in part, on a portion of the URI, where the protocol object creator implements one or more creator methods defined in an abstract creator base class; and invoking at least one of the one or more protocol object creators to create the protocol object (*col.6, lines 19-47*).

37. As to claim 20, Potvin does not explicitly teach using the base class API to communicate through the protocol object comprises: implementing one or more methods defined in the base class API in a derived class; and employing the one or more implemented methods.

De Boor teaches using the base class API to communicate through the protocol object comprises: implementing one or more methods defined in the base class API in a derived class; and employing the one or more implemented methods (*col.12, lines 15-35*).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Potvin and De Boor because De Boor's teaching would have provided the capability for efficiently dispatching data packets over the communication network.

38. As to claim 21, Potvin teaches at least one of the one or more methods can be employed to read a first data from a resource, the first data having at least one of a format specific to the protocol and one or more headers and/or footers specific to the protocol when it is read from the resource, the first data being provided to the computer program as a byte stream (*col.5, lines 31-51 and col.6, lines 45-58*).

39. As to claim 22, Potvin teaches at least one of the one or more methods can be employed to write a second data to the resource, the second data having at least one of a format specific to the protocol and one or more headers and/or footers specific to the protocol when it is written to the resource, the second data being provided to the one or more methods as a byte stream (*col.5, lines 31-51 and col.6, lines 45-58*).

40. As to claim 23, Potvin teaches a computer readable medium having computer executable instructions operable to perform the method of claim 17 (*col. 3, lines 39-42*).

Conclusion

41. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- French (U.S. 6654794) teaches "Method, data processing system and program product that provide an internet-compatible network file system driver."

- Baum et al. (U.S. 6456632) teaches "Protocol separation in packet communication."

- Baker (U.S. 6449719) teaches "Process and streaming server for encrypting a data stream."

- Ismael et al. (U.S. 6234581) teaches "Method and system for remotely browsing objects."

- Olson (U.S. 6047319) teaches "Network terminal server with full API implementation."

- Man (U.S. 5710908) teaches "Adaptive network protocol independent interface."

42. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VAN H NGUYEN whose telephone number is (703) 306-5971. The examiner can normally be reached on Monday-Thursday from 8:30AM - 6:00PM. The examiner can also be reached on alternative Friday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (703) 305-9678.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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